antibodies known to bind to improperly glycosylated cancer cells and an effective amount of a labeled antibody which specifically binds to C3b(i), said time interval being sufficient to permit the labeled antibody to concentrate at any cancerous site in said subject, wherein detection of the labeled antibody localized at a site in the subject indicates the presence of cancer at said site.

B6 Cont

61. (New) The method of Claim 58 or 59 in which the IgM antibodies known to bind to improperly glycosylated cancer cells are administered intravenously.

ADD C4

REMARKS

Claims 20-34, 43-45, and 48-57 were pending in the instant application. Applicants note that the restriction requirement was made final and thus, claims 43-45 and 57, drawn to non-elected inventions, were withdrawn from consideration. In view of their withdrawal from consideration, claims 43-45 and 57 have been canceled, without prejudice to Applicants' right to pursue the subject matter of the canceled claims in related applications. Applicants have also canceled claims 25 and 54 without prejudice to Applicants' right to pursue the subject matter of the canceled claims in related applications. Applicants have amended claims 20-24, 26, 27, 29-34, 48-53, 55 and 56 and added new claims 58-61 to more particularly point out and distinctly claim the subject matter of their invention. A marked up version of the claims showing the amendments to claims 20-24, 26, 27, 29-34, 48-53, 55 and 56, with deletions and additions indicated by brackets and underlining, respectively, is attached hereto as Exhibit A. Support for the amendments to claims 20-24, 26, 27, 29-34, 48-53, 55 and 56 and new claims 58-61 can be found throughout the instant application, see, *e.g.*, page 5, lines 20-33, page 10, line 11 to page 11, line 2, and page 59, line 20 to page 40, line 22. Applicants assert that the amendments to 20-24, 26, 27, 29-34, 48-53, 55 and 56 and new claims 58-61 do not constitute new matter. Claims 20-24, 26-34, 48-53, 55, 56 and 58-61 are, therefore, pending in the instant application. A copy of the pending claims is attached hereto as Exhibit B.

Applicants respectfully request entry of the foregoing amendments and remarks into the file history of the above-identified application.

1. THE CLAIMED INVENTION IS NOT ANTICIPATED BY MORGAN

Claims 20-22, 24-27, 29-31, 33, 34, 48-50 and 53 are rejected under 35 U.S.C. § 102(b) as being anticipated by Morgan, U.S. Patent No. 5,376,356 ("Morgan"). The Office Action alleges that Morgan discloses methods of detecting inflammation in a human comprising intravenous administration of a monoclonal antibody which binds to C3dg. The Office Action also alleges that Morgan discloses a method of detecting inflammation in a human comprising intravenous administration of an unlabeled monoclonal antibody which binds to C3dg and a labeled monoclonal antibody which binds to C3dg. The Office Action also alleges that the antibody to C3dg would react with C3b(i) since C3b(i) comprises C3dg. The Office Action further alleges that even though the object of the invention in Morgan is the detection of inflammation, the detection of tumors exhibiting C3b(i) is inherent to the invention disclosed by Morgan. For the reasons detailed below, the rejection cannot stand and should be withdrawn.

It is axiomatic that for a prior art reference to anticipate a claimed invention under 35 U.S.C. § 102, it has to meet every element of the claimed invention. *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 231 U.S.P.Q. 81, 90 (Fed. Cir. 1986), *cert. denied*, 480 U.S. 947 (1987).

Applicants have canceled claim 25 without prejudice to Applicants' right to pursue the subject matter of the canceled claim in a related application. Applicants have also amended claims 20-22, 24, 26, 27, 29-31, 33, 34, 48-50, and 53 and added new claims 58-61 to more particularly point out and distinctly claim the subject matter of their invention. In particular, claims 20 and 29 (and claims dependent therefrom) have been amended to recite methods of detecting cancer comprising administering a labeled antibody which specifically binds to C3b(i) or a labeled antibody which specifically binds to C3b(i) covalently linked to a second molecule to a subject and determining whether or not cancer is present at a site in the subject by detecting the presence of the labeled antibody at said site in the subject. Moreover, Claims 48, 49 and 50 (and claims dependent therefrom) have been amended to recite methods of detecting cancer comprising the administration of plasma to a subject prior to the administration of a labeled antibody which specifically binds to C3b(i). New claims 58, 59 and 60 (and claims dependent therefrom) recite methods of detecting cancer comprising the administration of one or more IgM antibodies known to bind to improperly

glycosylated cancer cells to a subject prior to the administration of a labeled antibody which specifically binds to C3b(i).

The present invention teaches that the administration of normal human plasma restores or enhances C3b(i) opsonization of tumor cells and thus, provides unique and specific determinants for targeting by antibodies which specifically bind to C3b(i) (see, *e.g.*, page 9, lines 24-26 of the instant specification). The present invention also teaches that the administration of IgM antibodies known to bind to improperly glycosylated cancer cells enhance C3b(i) opsonization and thus, provide unique and specific determinants for targeting by antibodies which specifically bind to C3b(i) (see, *e.g.*, page 9, lines 24-26 of the instant specification).

The claimed invention is not anticipated by Morgan. Morgan describes methods of imaging tissues sites of inflammation by administering a labeled monoclonal antibody or peptide capable of interacting with antigens associated with activated leukocytes. In particular, Morgan describes methods of imaging tissue sites of inflammation by administering a labeled murine monoclonal antibody directed against C3dg. Morgan also describes methods of imaging tissue sites of inflammation by administering an unlabeled monoclonal antibody or peptide capable of interacting with antigens associated with activated leukocytes followed by the administration of a labeled monoclonal antibody or peptide capable of interacting with antigens associated with activated leukocytes. More specifically, Morgan describes methods of imaging tissue sites of inflammation by administering an unlabeled murine monoclonal antibody directed against C3dg followed by the administration of a labeled murine monoclonal antibody directed against C3dg. Morgan only describes methods for determining whether or not inflammation is present at a particular site in a subject, regardless of whether or not cancer is present.

Morgan does not teach or suggest methods for determining that cancer is present at a site in a subject by detecting if a labeled antibody which specifically binds to C3b(i) or a labeled antibody which specifically binds to C3b(i) covalently linked to a second molecule is localized at said site. Moreover, Morgan does not teach or suggest methods of detecting cancer comprising administering plasma, or one or more IgM antibodies known to bind to improperly glycosylated cancer cells prior to the administration of a labeled antibody which specifically binds to C3b(i). There is no teaching or suggestion in Morgan to use plasma, or IgM antibodies known to bind to improperly glycosylated cancer cells in methods for the

detection of cancer, let alone any teaching or a suggestion to use plasma, or IgM antibodies known to bind to improperly glycosylated cancer cells in combination with antibodies which specifically bind to C3b(i) in methods for the detection of cancer. Accordingly, Morgan does not meet every element of the claimed invention, and therefore, does not anticipate the claimed invention.

In view of the foregoing, the rejection under 35 U.S.C. § 102(b) cannot stand and should be withdrawn.

2. THE CLAIMED INVENTION IS NOT OBVIOUS

2.1. THE REJECTION OF CLAIM 54 SHOULD BE WITHDRAWN

Claim 54 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Morgan in view of Seya et al., 1990, J. Immunology, 145:238-245. The Office Action alleges that Morgan discloses methods of detecting inflammation in a human comprising intravenous administration of a monoclonal antibody which binds to C3dg. The Office Action also alleges that Morgan discloses a method of detecting inflammation in a human comprising intravenous administration of an unlabeled monoclonal antibody which binds to C3dg and a labeled monoclonal antibody which binds to C3dg. The Office Action concedes that Morgan does not teach the administration of C3 prior to the administration of labeled antibody to C3b(i). However, the Office Action alleges that Seya teaches that most tumor cell lines do not exhibit more than a slight amount of C3 deposition. The Office Action alleges that it would have been *prima facie* obvious to one skilled in the art at the time the invention was made to administer C3 before the administration of an antibody to C3b(i). For the reasons detailed below, the rejection cannot stand and should be withdrawn.

Applicants have canceled claim 54 without prejudice to Applicants' right to pursue the subject matter of the canceled claim in a related application. The cancellation of claim 54 has rendered the rejection moot. Accordingly, the rejection of claim 54 cannot stand and should be withdrawn.

2.2. MORGAN IN VIEW OF EMERY DOES NOT RENDER CLAIMS 23, 32, 51 AND 52 OBVIOUS

Claims 23, 32, 51, and 52 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Morgan in view of Emery and Harris, "Strategies for Humanizing Antibodies,"

Antibody Engineering 2nd Edition, pp. 159-161 ("Emery"). The Office Action alleges that Morgan discloses methods of detecting inflammation in a human comprising intravenous administration of a murine monoclonal antibody which binds to C3dg. The Office Action concedes that Morgan does not teach the administration of human or humanized labeled antibody which binds to C3b(i). However, the Office Action alleges that Emery provides general teaches on the use of humanized and human antibodies in human clinical trials. The Office Action alleges that it would have been *prima facie* obvious to one skilled in the art at the time the invention was made to administer a human or humanized antibody which specifically binds to C3b(i). For the reasons detailed below, the rejection cannot stand and should be withdrawn.

A finding of obviousness requires a determination of the scope and content of the prior art, the level of ordinary skill in the art, the differences between the claimed subject matter and the prior art, and whether the differences are such that the subject matter as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made. *Graham v. Deere* 383 U.S. 1 (1996). The proper inquiry is whether the art suggests the invention, and whether the art provides one of ordinary skill in the art with a reasonable expectation of success. *In re O'Farrell* 853 F.2d 894, 7 USPQ2d 1673 (Fed. Cir. 1988). Both the suggestion and the reasonable expectation of success must be founded in the prior art and not in the Applicants' disclosure. *In re Vaeck* 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). It is impermissible to engage in hindsight reasoning, using the claims as a frame and the prior art reference as a mosaic to piece together a facsimile of the claimed invention. *W.L. Gore & Assoc., Inc. v. Garlock, Inc.* 220 USPQ 303, 312 (Fed. Cir. 1983).

Neither Morgan nor Emery, alone or in combination, teach or suggest the methods of the claimed invention. As stated above, Morgan describes methods of imaging tissue sites of inflammation by administering an unlabeled murine monoclonal antibody directed against C3dg followed by the administration of a labeled murine monoclonal antibody directed against C3dg. Morgan does not teach or suggest methods for determining that cancer is present at a site in a subject by detecting if a labeled antibody which specifically binds to C3b(i) or a labeled antibody which specifically binds to C3b(i) covalently linked to a second molecule is localized at said site. Further, Morgan does not teach or suggest detecting cancer by administering to a subject plasma, or one or more IgM antibodies known to bind to improperly glycosylated cancer cells prior to the administration of a labeled antibody which

specifically binds to C3b(i). Nor does Morgan describe methods of detecting cancer by administering to a subject plasma, or one or more IgM antibodies known to bind to improperly glycosylated cancer cells prior to the administration of a labeled human or humanized antibody which specifically binds to C3b(i). As acknowledged in the Office Action, Morgan does not teach the use of labeled humanized or human antibodies which specifically bind to C3b(i). Morgan only describes the use of murine monoclonal antibodies which specifically bind to C3b(i). Thus, Morgan does not render claims 23, 32, 51, and 52 obvious.

The deficiencies in Morgan are not cured by Emery. Emery merely teaches general methods of producing humanized monoclonal antibodies. Emery does not teach or suggest methods for determining that cancer is present at a site in a subject by detecting if a labeled antibody which specifically binds to C3b(i) or a labeled antibody which specifically binds to C3b(i) covalently linked to a second molecule is localized at said site. Further, Emery does not teach or suggest detecting cancer by administering to a subject plasma, or one or more IgM antibodies known to bind to improperly glycosylated cancer cells prior to the administration of a labeled antibody which specifically binds to C3b(i). In fact, Emery does not even teach or suggest antibodies which specifically bind to C3b(i), let alone humanized antibodies which specifically bind to C3b(i) for use in the detection of cancer. Thus, neither Morgan or Emery, alone nor in combination, teach or suggest the methods of the claimed invention.

2.3. NEITHER MORGAN NOR WHAT IS WITHIN THE PURVIEW OF ONE OF SKILL IN THE ART RENDER CLAIMS 28, 55 AND 56 OBVIOUS

Claims 28, 55 and 56 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Morgan and what is within the purview of one of skill in the art. The Office Action alleges that Morgan teaches the methods of claims 20, 48 and 49. The Office Action concedes that Morgan does not teach repeating the methods of claims 20, 48 and 49 at monthly or yearly intervals as required by claims 28, 55 and 56. Rather, the Office Action alleges that Morgan defines the interval of time that is optimum for detecting cancer in an individual as a function of the medical history of said individual which is within the purview of one of skill in the relevant art. The Office Action alleges that it would have been *prima facie* obvious to one skilled in the art at the time the invention was made to repeat the

methods of detection taught in Morgan on individuals at risk for recurring disease. For the reasons detailed below, the rejection cannot stand and should be withdrawn.

Applicants have amended claim 55 to depend from amended independent claim 48 and new independent claim 58. Applicants have also amended claim 56 to depend from amended independent claim 49 and new independent claim 59. Amended claims 48 and 49 recite methods of detecting cancer comprising the administration of plasma to a subject prior to the administration of a labeled antibody which specifically binds to C3b(i). New claims 58 and 59 recite methods of detecting cancer comprising the administration of one or more IgM antibodies known to bind to improperly glycosylated cancer cells to a subject prior to the administration of a labeled antibody which specifically binds to C3b(i).

Neither Morgan nor what would have been in the art as of the effective filing date of the instant, alone or in combination, teach or suggest the methods of the claimed invention. As discussed above, Morgan describes methods of imaging tissue sites of inflammation by administering an unlabeled murine monoclonal antibody directed against C3dg followed by the administration of a labeled murine monoclonal antibody directed against C3dg. Morgan does not teach or suggest methods for determining that cancer is present at a site in a subject by detecting if a labeled antibody which specifically binds to C3b(i) or a labeled antibody which specifically binds to C3b(i) covalently linked to a second molecule is localized at said site, let alone repeating said methods monthly or yearly. Moreover, Morgan does not teach or suggest methods for detecting cancer comprising administering to a subject plasma, or one or more IgM antibodies known to bind to improperly glycosylated cancer cells prior to the administration of a labeled antibody which specifically binds to C3b(i). Nor does Morgan teach or suggest repeating said methods for detecting cancer comprising administering to a subject plasma, or one or more IgM antibodies known to bind to improperly glycosylated cancer cells prior to the administration of a labeled antibody which specifically binds to C3b(i) at monthly or yearly intervals. Thus, Morgan does not render claims 28, 55 and 56 obvious.

The deficiencies in Morgan are not cured by what would have been in the purview of one of skill in the art as of the effective filing date of the instant application.[1] Applicants

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[1] The instant application claims priority to provisional application Serial No. 60/099,782, filed September 10, 1998 and U.S. provisional application Serial No. 60/123,786, filed

(continued...)

respectfully assert that it would not have been within the purview of one of skill in the art at as of the effective filing date of the instant application to detect cancer by administering to a subject plasma, or one or more IgM antibodies known to bind to improperly glycosylated cancer cells prior to the administration of a labeled antibody which specifically binds to C3b(i). Further, Applicants respectfully assert that it would not have been within the purview of one of skill in the art as of the effective filing date of the instant application to repeat methods for detecting cancer comprising administering to a subject plasma, or one or more IgM antibodies known to bind to improperly glycosylated cancer cells prior to the administration of a labeled antibody which specifically binds to C3b(i) at monthly or yearly intervals. Thus, neither Morgan nor what would have been in the art as of the effective filing date of the instant, alone or in combination, render claims 28, 55 and 56 obvious.

In view of the foregoing, the rejection under 35 U.S.C. § 103(a) cannot stand and should be withdrawn.

CONCLUSION

Entry of the foregoing amendments and remarks into the file of the above-identified application is respectfully requested. Applicants believe that all of the present claims meet all the requirements for patentability. Withdrawal of all rejections and reconsideration of the amended claims are requested. An allowance is earnestly sought.

If any issues remain, the Examiner is requested to telephone the undersigned at (212) 790-2296.

Respectfully submitted,

Date: August 6, 2001

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Enclosures

[1](...continued)
March 11, 1999.

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EXHIBIT A

A MARKED UP VERSION OF THE AMENDED CLAIMS FILED AUGUST 6, 2001 IN U.S. PATENT APPLICATION SERIAL NO. 09/392,500 ATTORNEY DOCKET NO. 9426-019

20. (Twice Amended) A method for detecting cancer comprising:

a) administering an effective amount of a labeled antibody which specifically binds to C3b(i) or a labeled antibody which specifically binds to C3b(i) covalently linked to a second molecule to a subject [an effective amount of a labeled antibody which specifically binds to C3b(i) or a labeled antibody to C3b(i) covalently linked to a second molecule];

b) waiting for a time interval following the administration to permit the labeled antibody to [preferentially] concentrate at any cancerous site in the subject;

c) determining background level; [and]

d) detecting the labeled antibody in the subject[, wherein detection of the labeled antibody above the background level indicates the presence of a cancer]; and

e) determining that cancer is present at said site in the subject if the labeled antibody is detected above background level at said site in the subject.

21. (Twice amended) The method of Claim 20, 48, [or] 49, 58 or 59 in which the subject is a human.

22. (Twice amended) The method of Claim 20, 48, [or] 49, 58 or 59 in which the labeled antibody is a monoclonal antibody.

23. (Twice amended) The method of Claim 20, 48, [or] 49, 58 or 59 in which the labeled antibody is a humanized antibody.

24. (Twice amended) The method of Claim 20, 48, [or] 49, 58 or 59 in which the labeled antibody is labeled with a radioisotope.

26. (Twice amended) The method of Claim 20 [or] 48 or 58 in which time interval is 6 hours to 48 hours.

27. (Twice amended) The method of Claim 20, 48, [or] 49, 58 or 59 in which the labeled antibody is administered intravenously.

29. (Twice Amended) A method for detecting cancer in a subject, comprising:

(a) imaging said subject at a time interval after administering to said subject an effective amount of a labeled antibody which specifically binds to C3b(i) or a labeled antibody [covalently linked to a second molecule] which antibody specifically binds to C3b(i) covalently linked to a second molecule, said time interval being sufficient to permit the labeled antibody to [preferentially] concentrate at any cancerous site in said subject[, wherein detection of the labeled antibody localized at said site in the subject indicates the presence of cancer]; and

(b) determining that cancer is present at a site in said subject if the labeled antibody is localized at said site in the subject.

30. (Twice amended) The method of Claim 29, [or] 50 or 60 in which the subject is a human.

31. (Twice amended) The method of Claim 29, [or] 50 or 60 in which the labeled antibody is a monoclonal antibody.

32. (Twice amended) The method of Claim 29, [or] 50 or 60 in which the labeled antibody is a humanized antibody.

33. (Twice amended) The method of Claim 29, [or] 50 or 60 in which the labeled antibody is labeled with a radioisotope.

34. (Twice amended) The method of Claim 29, [or] 50 or 60 in which time interval is 6 hours to 48 hours.

48. (Once amended) A method for detecting cancer comprising:

a) administering plasma to a subject [plasma, one or more complement components, IgG antibody or IgM antibody];

b) administering an effective amount of a labeled antibody which specifically binds to C3b(i) to said subject [an effective amount of a labeled antibody which specifically binds to C3b(i)];

c) waiting for a time interval following step (b) to permit the labeled antibody to [preferentially] concentrate at any cancerous site in the subject;

d) determining background level; and

e) detecting the labeled antibody in the subject, wherein detection of the labeled antibody above the background level at a site in the subject indicates the presence of a cancer at said site.

49. (Once amended) A method for detecting cancer comprising:

a) administering plasma to a subject [plasma, one or more complement components, IgG antibody or IgM antibody];

b) waiting for a time interval following step (a);

c) administering an effective amount of a labeled antibody which specifically binds to C3b(i) to said subject [an effective amount of a labeled antibody which specifically binds to C3b(i)];

d) waiting for a time interval following step (c) to permit the labeled antibody to [preferentially] concentrate at any cancerous site in the subject;

e) determining background level; and

f) detecting the labeled antibody in the subject, wherein detection of the labeled antibody above the background level at a site in the subject indicates the presence of a cancer at said site

50. (Once amended) A method for detecting cancer in a subject, comprising imaging said subject at a time interval after administrating sequentially to said subject plasma[, one or more complement components, IgG antibody or IgM antibody] and an effective amount of a labeled antibody which specifically binds to C3b(i), said time interval being sufficient to permit the labeled antibody to [preferentially] concentrate at any cancerous site in said subject, wherein detection of the labeled antibody localized at [said] a site in the subject indicates the presence of cancer at said site.

51. (Once amended) The method of Claim 20, 48, [or] 49, 58 or 59 in which the labeled antibody is a human antibody.

52. (Once amended) The method of Claim 29, or 50 or 60 in which the labeled antibody is a human antibody.

53. (Once amended) The method of Claim 48 or 49 in which the plasma[, IgG antibody or IgM antibody] is administered intravenously.

55. (Once amended) The method of Claim 48 or 58 which further comprises repeating steps (a) through (e) at monthly intervals.

56. (Once amended) The method of Claim 49 or 59 which further comprises repeating steps (a) through (f) at monthly or yearly intervals.

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EXHIBIT B

PENDING CLAIMS
AS OF AUGUST 6, 2001
IN U.S. PATENT APPLICATION SERIAL NO. 09/392,500
ATTORNEY DOCKET NO. 9426-019

20. A method for detecting cancer comprising:

a) administering an effective amount of a labeled antibody which specifically binds to C3b(i) or a labeled antibody which specifically binds to C3b(i) covalently linked to a second molecule to a subject;

b) waiting for a time interval following the administration to permit the labeled antibody to concentrate at any cancerous site in the subject;

c) determining background level;

d) detecting the labeled antibody at a site in the subject; and

e) determining that cancer is present at said site in the subject if the labeled antibody is detected above background level at said site in the subject.

21. The method of Claim 20, 48, 49, 58 or 59 in which the subject is a human.

22. The method of Claim 20, 48, 49, 58 or 59 in which the labeled antibody is a monoclonal antibody.

23. The method of Claim 20, 48, 49, 58 or 59 in which the labeled antibody is a humanized antibody.

24. The method of Claim 20, 48, 49, 58 or 59 in which the labeled antibody is labeled with a radioisotope.

26. The method of Claim 20, 48 or 58 in which time interval is 6 hours to 48 hours.

27. The method of Claim 20, 48, 49, 58 or 59 in which the labeled antibody is administered intravenously.

28. The method of Claim 20 which further comprises repeating steps (a) through (d) at monthly or yearly intervals.

29. A method for detecting cancer in a subject, comprising

(a) imaging said subject at a time interval after administering to said subject an effective amount of a labeled antibody which specifically binds to C3b(i) or a labeled antibody which specifically binds to C3b(i) covalently linked to a second molecule, said time interval being sufficient to permit the labeled antibody to concentrate at any cancerous site in said subject; and

(b) determining that cancer is present at a site in said subject if the labeled antibody is localized at said site in the subject.

30. The method of Claim 29, 50 or 60 in which the subject is a human.

31. The method of Claim 29, 50 or 60 in which the labeled antibody is a monoclonal antibody.

32. The method of Claim 29, 50 or 60 in which the labeled antibody is a humanized antibody.

33. The method of Claim 29, 50 or 60 in which the labeled antibody is labeled with a radioisotope.

34. The method of Claim 29, 50 or 60 in which time interval is 6 hours to 48 hours.

48. A method for detecting cancer comprising:

a) administering plasma to a subject;

b) administering an effective amount of a labeled antibody which specifically binds to C3b(i) to said subject;

c) waiting for a time interval following step (b) to permit the labeled antibody to concentrate at any cancerous site in the subject;

d) determining background level; and

e) detecting the labeled antibody in the subject, wherein detection of the labeled antibody above the background level at a site in the subject indicates the presence of a cancer at said site.

49. A method for detecting cancer comprising:

a) administering plasma to a subject;

b) waiting for a time interval following step (a);

c) administering an effective amount of a labeled antibody which specifically binds to C3b(i) to said subject;

d) waiting for a time interval following step (c) to permit the labeled antibody to concentrate at any cancerous site in the subject;

e) determining background level; and

f) detecting the labeled antibody in the subject, wherein detection of the labeled antibody above the background level at a site in the subject indicates the presence of a cancer at said site.

50. A method for detecting cancer in a subject, comprising imaging said subject at a time interval after administrating sequentially to said subject plasma and an effective amount of a labeled antibody which specifically binds to C3b(i), said time interval being sufficient to permit the labeled antibody to concentrate at any cancerous site in said subject, wherein detection of the labeled antibody localized at a site in the subject indicates the presence of cancer at said site.

51. The method of Claim 20, 48, 49, 58 or 59 in which the labeled antibody is a human antibody.

52. The method of Claim 20, 50 or 60 in which the labeled antibody is a human antibody.

53. The method of Claim 48 or 49 in which the plasma is administered intravenously.

55. The method of Claim 48 or 58 which further comprises repeating steps (a) through (e) at monthly intervals.

56. The method of Claim 49 or 59 which further comprises repeating steps (a) through (f) at monthly or yearly intervals.

58. A method for detecting cancer comprising:

a) administering one or more IgM antibodies known to bind to improperly glycosylated cancer cells to a subject;

b) administering an effective amount of a labeled antibody which specifically binds to C3b(i) to said subject;

c) waiting for a time interval following step (b) to permit the labeled antibody to concentrate at any cancerous site in the subject;

d) determining background level; and

e) detecting the labeled antibody in the subject, wherein detection of the labeled antibody above the background level at a site in the subject indicates the presence of a cancer at said site.

59. A method for detecting cancer comprising:

a) administering one or more IgM antibodies known to bind to improperly glycosylated cancer cells to a subject;

b) waiting for a time interval following step (a);

c) administering an effective amount of a labeled antibody which specifically binds to C3b(i) to said subject;

d) waiting for a time interval following step (c) to permit the labeled antibody to concentrate at any cancerous site in the subject;

e) determining background level; and

f) detecting the labeled antibody in the subject, wherein detection of the labeled antibody above the background level at a site in the subject indicates the presence of a cancer at said site.

60. A method for detecting cancer in a subject, comprising imaging said subject at a time interval after administrating sequentially to said subject one or more IgM

antibodies known to bind to improperly glycosylated cancer cells and an effective amount of a labeled antibody which specifically binds to C3b(i), said time interval being sufficient to permit the labeled antibody to concentrate at any cancerous site in said subject, wherein detection of the labeled antibody localized at a site in the subject indicates the presence of cancer at said site.

61. The method of Claim 58 or 59 in which the IgM antibodies known to bind to improperly glycosylated cancer cells are administered intravenously.